

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Review of Order)
No. 74-108 (NPDES Permit No. CA0037761))
of the California Regional Water Quality)
Control Board, San Francisco Bay Region,)
for the City of Pittsburg; the Review of)
Order No. 76-55 (NPDES Permit No. CA0079278))
of the California Regional Water Quality)
Control Board, Central Valley Region, for)
the City of Antioch; and the Review of Order)
No. WQ 75-14 of the State Water Resources)
Control Board)

Order No. WQ 77-7

A-84

BY BOARD VICE CHAIRMAN MAUGHAN:

On January 20, 1977, the State Water Resources Control Board (State Board) in Resolution No. 77-5 determined to review on its own motion the following orders: Order No. 74-108, adopted by the California Regional Water Quality Control Board, San Francisco Bay Region (San Francisco Bay Regional Board) and subsequently modified by the State Board; Order No. 76-55, adopted by the California Regional Water Quality Control Board, Central Valley Region (Central Valley Regional Board); and Order No. WQ 75-14, adopted by the State Board. Order No. 74-108 (NPDES Permit No. CA0037761) prescribes waste discharge requirements for the Camp Stoneman Sewage Treatment Plant of the City of Pittsburg. Order No. 76-55 (NPDES Permit No. CA0079278), adopted by the Central Valley Regional Board to supersede Order No. 74-568, prescribes waste discharge requirements for the City of Antioch Waste Treatment Plant on Cavallo Road. State Board Order No. WQ 75-14 was adopted June 19, 1975. In Order No. WQ 75-14, the

State Board reviewed Orders Nos. 74-108 and 74-109^{1/} of the San Francisco Bay Regional Board, and Order No. 74-568 of the Central Valley Regional Board.

On February 22, 1977, the State Board held a hearing for the purpose of receiving evidence relative to the appropriateness and propriety of Orders Nos. 74-108 and 76-55 of the San Francisco Bay and Central Valley Regional Boards, respectively, and for the purpose of reconsideration of State Board Order No. WQ 75-14. The hearing was also held for the purpose of receiving evidence relative to the adoption by the State Board of waste discharge requirements (NPDES permits), substantially as contained in the tentative waste discharge requirements incorporated in the Notice of Hearing dated February 4, 1977, as permitted by Water Code Section 13320(c).

I. BACKGROUND

Since State Board Order No. WQ 75-14 contains a comprehensive statement of the factual background of the matters now before the Board, it is unnecessary to repeat those facts in full. We need only refer to Order No. WQ 75-14 and generally describe here events which occurred after the adoption of Order No. WQ 75-14, which necessitate our review of Regional Board Orders Nos. 74-108 and 76-55 and reconsideration of our Order No. WQ 75-14. Of course, a more detailed description of the factual background of these matters appears in the hearing record. A tabulation of

^{1/}Although San Francisco Bay Regional Board Order No. 74-109, prescribing waste discharge requirements for the Montezuma Sewage Treatment Plant of the City of Pittsburg, was reviewed by the State Board in its adoption of Order No. WQ 75-14, the provisions of Order No. 74-109 are not at issue at this time and are not discussed herein, except as they may be relevant to the description of the factual background of these proceedings.

the substance of Regional Board Orders Nos. 74-108, 76-55 (74-568), State Board Order No. WQ 75-14, and proposed requirements, as pertinent here, is attached to this Order. (See Attachment A).

In Order No. WQ 75-14 we were primarily concerned with waste discharge requirements for existing primary sewage treatment facilities which the Cities of Antioch and Pittsburg (hereinafter sometimes referred to as the dischargers) intended to use until the construction of secondary treatment facilities. As a part of Order No. WQ 75-14, we adopted modifications to requirements contained in the Regional Board Orders for discharges prior to the implementation of secondary treatment.

The modifications were based largely upon representations by the dischargers of the short, interim nature of the primary discharges and the assumption, based upon the dischargers' representations, that facilities providing secondary treatment would be completed in 1979. We concluded in Order No. WQ 75-14 that if the dischargers failed to meet any of the intermediate deadlines necessary for implementation of secondary treatment with dechlorination by 1979, more stringent interim waste discharge requirements should apply.

In January 1977, it came to our attention that secondary treatment facilities were not being developed in accordance with time schedules contained in the Regional Board orders for Antioch and Pittsburg (Camp Stoneman) as modified by our Order No. WQ 75-14.

In addition, due to Pittsburg's failure to meet the time schedule prescribed in Regional Board Order No. 74-108 and due to the new requirements prescribed for Antioch in Regional Board Order No. 76-55, the interim waste discharge requirements for the Antioch and Pittsburg discharges had become considerably different from those we adopted as a part of Order No. WQ 75-14. (See Attachment A to this Order.) As permitted by Section 13320 of the Water Code, the State Board decided to review these matters on its own motion.

As was the case in Order No. WQ 75-14, at present we are primarily concerned with waste discharge requirements for waste treatment facilities which Antioch and Pittsburg intend to use until the construction of secondary treatment facilities. The dischargers have elected to obtain secondary treatment and dechlorination as participants in the Subregional Wastewater Management System proposed by the East/Central Contra Costa County Wastewater Management Agency. The proposed Subregional Project includes, among other components, construction of secondary treatment facilities at the site of the present Pittsburg Camp Stoneman Plant and construction of an interceptor to convey Antioch's wastewaters to that site. The proposed interceptor is to be completed by March 1, 1979. In early 1979, prior to the implementation of secondary treatment, Antioch plans to divert part of its wastewater to the Camp Stoneman Plant for treatment and discharge. This early diversion of wastewater is proposed because the Antioch plant presently discharges an average daily flow of 2.5 mgd, but, as noted in Order No. WQ 75-14, a 1975 evaluation indicated that its actual primary treatment capacity was only approximately 1.4 mgd. According to testimony

received at the hearing, the Camp Stoneman Plant has an estimated primary treatment capacity of 5 mgd and is presently discharging an average daily flow of 1.5 mgd.

II. ISSUES

The issues which require our consideration are issues which we addressed in Order No. WQ 75-14, in which our findings and conclusions were predicated upon reasonable progress and timely construction of secondary treatment facilities for both Antioch and Pittsburg. However, insofar as our review, including testimony received from the dischargers at the hearing on February 22, 1977, has indicated a projected completion date for secondary treatment facilities which is well beyond the 1979 date contemplated at the time of Order No. WQ 75-14, we have found it necessary to consider the adoption of modified interim waste discharge requirements for the Pittsburg (Camp Stoneman) and Antioch primary discharges.

A. INTERIM WASTE DISCHARGE REQUIREMENTS BY THE STATE BOARD.

1. Issue: Pittsburg and Antioch object in general to the adoption of interim waste discharge requirements which, they contend, cannot be met by their primary treatment facilities, even with the construction of some interim improvements.

Finding: That the discharge of a primary effluent, with or without dechlorination, is highly toxic to fish and other aquatic life was clearly established at the time of Order No. WQ 75-1 and has not been questioned in these subsequent

proceedings. It is evident from our Order No. WQ 75-14 that the interim waste discharge requirements adopted as a part of that order were considered adequate to protect the quality of the affected receiving waters only if secondary treatment facilities were constructed by 1979. The proposed interim waste discharge requirements for these dischargers are necessary to protect the quality of the receiving waters since the implementation of secondary treatment has been substantially delayed, and, as the dischargers themselves testified, continues to be subject to numerous contingencies.

With respect to the Antioch discharge, although Order No. 74-568 as modified, was remanded to the Central Valley Regional Board for "such future modification of requirements as deemed necessary", the Regional Board's action to rescind Order No. 74-568 and to adopt Order No. 76-55 prescribing less stringent requirements is inconsistent with our intent, expressed in Order No. WQ 75-14, to require interim effluent limitations to protect the quality of receiving waters until the implementation of secondary treatment. Since time schedule deadlines have not been met, it appears that secondary treatment facilities will not be available in 1979 as previously contemplated. We propose to adopt interim effluent limitations which are substantially the same for the Antioch and Pittsburg (Camp Stoneman) discharges. It is necessary and reasonable in our opinion to require these discharges to be of similar quality, notwithstanding their location in different regions (as those regions are described in Water Code Section 13200), due to several factors, including but not limited to the following: the great similarity of the charac-

teristics of the discharges, the great similarity of the characteristics of the respective receiving waters, the fact that due to tidal action these discharges may affect the quality of some water supplies of adjacent communities, and the proximity of the discharges, which must be considered when assessing their total impact on the receiving waters.

2. Issue: Is the adoption of interim effluent limitations for the Antioch and Pittsburg (Camp Stoneman) discharges for five-day Biochemical Oxygen Demand (BOD) and Suspended Solids, substantially as proposed in the tentative waste discharge requirements incorporated in the Notice of Hearing dated February 4, 1977 inappropriate?

Finding: The dischargers contend that limitations on the BOD and suspended solids are inappropriate for primary sewage treatment facilities. With the exception of the limitations discussed below, the dischargers apparently do not object specifically to other modifications proposed, since they presented no evidence directed to any other specific constituents for which modified interim requirements were proposed. The tentative waste discharge requirements discussed at the hearing on February 22, 1977 contained limits of 35 percent and 65 percent average removal for BOD and suspended solids, respectively, as interim requirements for both dischargers. In our opinion, after review of the entire record in this case, requirements of 30 and 60 percent average removal

for BOD and suspended solids, respectively, are reasonable and appropriate to protect the quality of the receiving waters from degradation due to a continuation of the Antioch and Pittsburg (Camp Stoneman) primary discharges prior to implementation of secondary treatment.

We recognize that ordinarily a primary treatment facility is not designed specifically to meet BOD and suspended solids limitations. Instead, performance is usually measured in terms of settleable matter. Nonetheless, a well-operated primary treatment plant does achieve BOD and suspended solids removal, and these are appropriate measures of the quality of treatment provided. Effluent limitations for BOD and suspended solids were included in the modifications of Orders Nos. 74-108 and 74-568, adopted as a part of our Order No. WQ 75-14. BOD and suspended solids remain appropriate and necessary parameters for measuring the quality of these interim discharges.

3. Issue: Is the adoption of interim settleable matter limitations for the Antioch discharge, substantially as included in the tentative waste discharge requirements incorporated in the Notice of Hearing dated February 4, 1977 inappropriate?

Finding: Notwithstanding the testimony of the City of Antioch that its existing primary treatment facilities are incapable of meeting the proposed settleable matter limitation, we believe the limitation to be both reasonable and necessary. As noted above, the existing Antioch sewage treatment facilities are presently overloaded and consequently are not operating at

optimum efficiency. Optimum performance is possible only if a treatment plant is not overloaded. While we recognize that some minor improvements to the dischargers' existing facilities may be necessary in order to achieve the proposed interim effluent limitations, the need for protection of the receiving waters prior to the implementation of secondary treatment is clear. Based upon a practical assessment of the optimum performance capabilities of the dischargers' existing facilities, the settleable matter limitation is reasonable and attainable, and this limitation is necessary in view of the overall improvement in interim water quality which must be achieved.

B. TIME SCHEDULES FOR COMPLIANCE WITH INTERIM WASTE DISCHARGE REQUIREMENTS AND FOR COMPLIANCE WITH SECONDARY TREATMENT REQUIREMENTS.

1. Issue: Are the proposed time schedules for the Antioch and Pittsburg (Camp Stoneman) discharges for interim waste discharge requirements, which will be effective until the implementation of secondary treatment and the time schedule for implementation of secondary treatment appropriate?

Finding: In keeping with the provisions of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500, Section 301) and the provisions of the Porter-Cologne Water Quality Control Act (Water Code Section 13000, et seq. especially 13379) the limitations to be included in Regional Board Orders Nos. 74-108 and 76-55 will require secondary treatment of the discharges by July 1, 1977. However, recognizing the amount of time which will be necessary to meet the requirement of secondary treatment, we realize that it is highly unlikely, if not impossible,

for the dischargers to meet this compliance date and that an extended time schedule for compliance will be necessary.

As a part of this order, we intend to prescribe an appropriate time schedule for compliance by the dischargers with the interim requirements already discussed, including completion of the conveyance facilities necessary to divert portions of the Antioch flows to Camp Stoneman, and to provide for compliance with the requirement for secondary treatment by these dischargers pursuant to Water Code Section 13300.

The Section 13300 procedure corresponds to the Enforcement Compliance Schedule Letter (E.C.S.L.) procedure recognized by the U.S. Environmental Protection Agency (EPA) in cases of unavoidable delay in the compliance dates prescribed by P.L. 92-500. It is clear, however, that such a procedure is intended to be available only for instances in which delay in the implementation of the required treatment has not been caused willfully, that is, instances in which the affected discharger(s) have made good faith efforts to provide the required degree of treatment but have been unable to do so because of circumstances beyond their reasonable control. Notwithstanding any action taken pursuant to Water Code Section 13300, unreasonable delay in implementing the required degree of treatment will be considered cause for enforcement action.

In the case of these dischargers, secondary treatment will apparently be obtained as a part of the East/Central Contra Costa County Subregional Wastewater Management System. To provide secondary treatment for the Pittsburg and Antioch discharges within a reasonable time after July 1, 1977, it is essential that these dischargers pursue the Subregional System to completion as rapidly as possible. However, until the expected date of implementation of secondary treatment interim effluent limitations will remain effective.

Time schedules for the construction of the proposed Subregional Wastewater Management System were submitted by Contra Costa County Sanitation District No. 7-A, by letter dated March 3, 1977. Available data indicates that the Subregional System can be completed and, therefore, that secondary treatment can be implemented, in accordance with the following schedule:

- | | |
|------------------|--|
| May 1, 1977 | - Submit analysis of alternate methods of financing and apply for Step 2 grant. |
| June 13, 1977 | - Demonstrate the availability of local financing for construction of facilities to meet requirements. |
| January 1, 1978 | - 50 percent completion of plans and specifications |
| May 1, 1978 | - Submit complete construction plans and specifications |
| November 1, 1978 | - Award construction contract |
| July 1, 1979 | - Status report |
| February 1, 1980 | - Status report |
| October 1, 1980 | - Status report |
| March 1, 1981 | - Complete construction |
| May 1, 1981 | - Full compliance with all final effluent limitations |

We recognize that Regional Board Orders Nos. 74-108 and 76-55 will expire shortly. The Pittsburg (Camp Stoneman) and Antioch discharges are, however, expected to continue. The San Francisco Bay Regional Board and the Central Valley Regional Board shall process any application for renewal of NPDES permits in strict compliance with the terms of this Order and consistent with guidance from the State Board concerning any further time extensions. That is, all effluent limitations, as well as the effective date for compliance by Pittsburg and the time schedule for compliance by Antioch with interim waste discharge requirements adopted by this Board for the Pittsburg (Camp Stoneman) and Antioch discharges as a part of this Order shall be included without change in any new or re-issued NPDES permits for these discharges.

Except for the following required interim compliance dates, the Regional Boards shall include appropriate time schedules for the implementation of secondary treatment for these discharges in appropriate Time Schedule Orders adopted in accordance with Water Code Section 13300, at the time of adoption of new or re-issued NPDES permits for these discharges. Each of the dischargers shall be required to comply with the May 1, 1977, and the June 13, 1977, dates and requirements as set forth in the above time schedule for the implementation of secondary treatment, and shall be required to provide a report of said compliance to the State Board, which shall be received by the State Board on or before the specified dates. Failure to meet these two intermediate dates will jeopardize compliance with the final date in the schedule and will constitute cause for the initiation of enforcement action by the State Board.

Subsequent to June 30, 1977, in the event of non-compliance of either of the dischargers with waste discharge requirements, time schedules contained therein, or Time Schedule Orders adopted under Water Code Section 13300, the Regional Boards shall advise the State Board of the facts and circumstances surrounding such non-compliance and of the steps taken or to be taken by the Regional Board(s) to obtain compliance. In view of the lengthy history of these proceedings and the need for uniformity in the requirements to be met by the two dischargers, and in accordance with Water Code Section 13320(d), we consider it necessary to retain primary jurisdiction over the prescription of waste discharge requirements for Pittsburg (Camp Stoneman) and Antioch. Therefore, Regional Board Orders Nos. 74-108 and 76-55 will be remanded to the San Francisco Bay Regional Board and the Central Valley Regional Board, respectively, for the limited purposes specified in this order.

IV. CONCLUSIONS

After review of the entire record and for the reasons heretofore expressed, we conclude that the action of the Central Valley Regional Board in adopting Order No. 76-55 was inappropriate in that it is in direct conflict with State Board Order No. WQ 75-14, and that Order No. 76-55 must be modified. We further conclude, after reconsideration of State Board Order No. WQ 75-14, that further modification of Order No. 74-108 is appropriate and will assure adequate quality of the interim discharge from the Camp Stoneman facility prior to the implementation of secondary treatment with dechlorination.

V. ORDER

IT IS HEREBY ORDERED that:

1. San Francisco Bay Regional Board Order No. 74-108

attached hereto, is modified as set forth in Attachment B. As modified, Regional Board Order No. 74-108 is adopted.

2. Central Valley Regional Board Order No. 76-55, attached hereto, is modified as set forth in Attachment C. As modified, Regional Board Order No. 76-55 is adopted.

3. San Francisco Bay Regional Board Order No. 74-108, as modified, is hereby remanded to the San Francisco Bay Regional Board for the following purposes only:

a. Any appropriate additions or revisions to monitoring and reporting requirements, as necessary to demonstrate compliance with the requirements of Regional Board Order No. 74-108.

b. Adoption of an NPDES permit, as necessary, in accordance with the terms of this Order.

c. Adoption of a Time Schedule Order requiring secondary treatment in accordance with Water Code Section 13300 and any other general guidance regarding Time Schedule Orders by the State Board.

d. All appropriate enforcement activities after June 30, 1977.

4. Central Valley Regional Board Order No. 76-55, as modified, is hereby remanded to the Central Valley Regional Board for the following purposes only:

a. Any appropriate additions or revisions to monitoring and reporting requirements, as necessary to demonstrate compliance with the requirements of Regional Board Order No. 76-55.

b. Adoption of an NPDES permit, as necessary, in accordance with the terms of this Order.

c. Adoption of a Time Schedule Order requiring secondary

treatment in accordance with Water Code Section 13300 and any other general guidance regarding Time Schedule Orders by the State Board.

d. All appropriate enforcement activities after June 30, 1977.

5. Except as provided above, the terms and provisions of State Board Order No. WQ 75-14 remain fully effective.

6. In the event that it appears that completion of the proposed Subregional Wastewater Management System will be delayed beyond October 1, 1981, the State Board will consider what additional interim improvements for the dischargers, if any, are necessary to protect water quality pending completion of the Subregional System.

Dated: April 6, 1977

We Concur:

/s/ W. Don Maughan
W. Don Maughan, Vice Chairman

ABSENT
John E. Bryson, Chairman

/s/ Roy E. Dodson
Roy E. Dodson, Member

/s/ W. W. Adams
W. W. Adams, Member

/s/ Jean Auer
Jean Auer, Member

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ATTACHMENT A *14*

SUMMARY OF EFFLUENT LIMITATIONS - Part I

Constituent	Antioch State Board Order WQ 75-14 (which would have been effective now)	Antioch C. V. Board Order 76-55 (effective now)	Antioch C. V. Board Order 76-55 (effective after completion of the interceptör)	Pittsburg (Camp Stoneman) State Board Order WQ 75-14
Settleable matter (ml/l)	0.8 30-day Average	3.5 30-day Average	2.8 30-day Average	0.5 6-sample Average
	1.0 90% of Samples			0.4 80% of Samples *1
Biological oxygen demand (mg/l)	35% removal	No limitation	35% removal	1.0 maximum 50% removal *2 35%
Suspended solids (mg/l)	65% removal	No limitation	65% removal	50% removal *2 65%
Chlorine residual daily maximum (mg/l)	2.0	0.1 *2	0.1 daily maximum 2+0	0.0
Total coliform organisms (MPN/100 ml)	200 30-day Average 2,300 maximum		200 30-day Average	23 30-day Average 500 maximum

*1 80% of all samples collected during maximum daily flow over any 30-day period.

*2 Became effective due to failure to comply with time schedule contained in respective waste discharge requirements.

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SUMMARY OF EFFLUENT LIMITATIONS - Part II

Constituent	Effective upon Adoption of Proposed Order		Effective at Time Interceptor is Scheduled to be Completed
	Antioch	Pittsburg ^{*3}	Antioch
Settleable matter (ml/l)	3.5 30-day Average	0.5 6-sample Average	0.5 6-sample Average
		0.4 80% of Samples *1	0.4 80% of Samples *1
		1.0 Maximum	1.0 Maximum
Biological oxygen demand (mg/l)	No limitation	30% removal	30% removal
Suspended solids (mg/l)	No limitation	60% removal	60% removal
Chlorine residual daily maximum (mg/l)	0.1	0.0	0.1
Total coliform organisms (MPN/100 ml)	240 5-sample median 10,000 maximum *4	240 5-sample median 10,000 maximum *4	240 5-sample median 10,000 maximum *4

*3 Remains effective after inteceptor is scheduled to be completed.

*4 Any single sample verified by a repeated sample.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AS MODIFIED BY THE
STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 77-7

ORDER NO. 74-108
NPDES NO. CA0037761

WASTE DISCHARGE REQUIREMENTS FOR
CITY OF PITTSBURG
CAMP STONEMAN PLANT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. City of Pittsburg - Camp Stoneman Plant, hereinafter called the discharger, submitted a report of waste discharge (NPDES Standard Form "A") and dated October 10, 1973.
2. The discharger presently discharges an annual average of 1.5 million gallons per day (mgd) of domestic waste (wastewater No. 001) containing pollutants into the New York Slough, a water of the United States, at a point approximately 600 feet easterly from the foot of Water Front Road, Pittsburg, California. The present treatment facilities consist of primary sedimentation and disinfection. The sludge is treated by digestion, followed by drying beds and final disposal on landfill. The design capacity of the plant is 5.0 mgd.
3. The Board, on June 14, 1971, adopted a Water Quality Control Plan (Interim) for San Francisco Bay Basin. The Interim Plan contains water quality objectives for New York Slough and San Francisco Bay. The Plan includes a prohibition against discharge of sewage bearing wastewater at any place within 200 feet offshore from the extreme low water line.
4. The beneficial uses of New York Slough and San Francisco Bay are:
 - a. Recreation
 - b. Fish migration and habitat
 - c. Habitat and resting for waterfowl and migratory birds
 - d. Industrial and agricultural water supply
 - e. Esthetic enjoyment
 - f. Navigation
5. Effluent limitation, and toxic and pretreatment effluent standards, established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.
6. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
7. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

8. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator, U. S. Environmental Protection Agency, has no objections.

IT IS HEREBY ORDERED that the City of Pittsburg - Camp Stoneman Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. Except for effluent limitation A.1.d., the discharge of an effluent containing constituents in excess of the following limits is prohibited after July 1, 1977.

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>30-Day Median</u>	<u>7-Day Average</u>	<u>Maximum Daily</u>	<u>Instantaneous Maximum</u>
a. B.O.D.	mg/l	30		45	60	
	lbs/day*	4000			8010	
	kg/day *	1816			3630	
b. Suspended Solids	mg/l	30		45	60	
	lbs/day *	4000			8010	
	kg/day *	1816			3630	
c. Oil and Grease	mg/l	10			20	
	lbs/day*	1335			2670	
	kg/day *	605			1210	
d. Chlorine Residual	mg/l					0.0
e. Settleable Matter	ml/l-hr	0.1				0.2
f. Total Coliform Organisms	MPN/100 ml		23		500	

* Based on the design capacity of the subregional plant (16 mgd).

2. Prior to achievement of secondary treatment as required by the Federal Water Pollution Control Act, and as defined by regulations of the Environmental Protection Agency, the following interim effluent limitations shall apply:
- a. Settleable matter:

The arithmetic mean of any six or more samples collected on any day 0.5 ml/l/hr, maximum

80% of all individual samples
collected during maximum daily flow
over any 30-day period

0.4 ml/l/hr, maximum

any sample

1.0 ml/l/hr, maximum

- b. The arithmetic mean of values for BOD and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 70 percent and 40 percent, respectively, of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 30 percent BOD removal and 60 percent suspended solids removal).

3. The discharge shall not have pH of less than 6.5 nor greater than 8.5.
4. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

TOXICITY:

The survival of acceptable test organisms in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated: (1)

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>50% of time</u>	<u>10% of time</u>
Arsenic	mg/l (kg/day)	0.01 (0.189)	0.02 (0.379)
Cadmium	mg/l (kg/day)	0.02 (0.379)	0.03 (0.568)
Total Chromium	mg/l (kg/day)	0.005 (0.0946)	0.01 (0.189)
Copper	mg/l (kg/day)	0.2 (3.79)	0.3 (5.68)
Lead	mg/l (kg/day)	0.1 (1.89)	0.2 (3.79)
Mercury	mg/l (kg/day)	0.001 (0.0189)	0.002 (0.0379)
Nickel	mg/l (kg/day)	0.1 (1.89)	0.2 (3.79)
Silver	mg/l (kg/day)	0.02 (0.379)	0.04 (0.757)
Zinc	mg/l (kg/day)	0.3 (5.68)	0.5 (9.46)
Cyanide	mg/l (kg/day)	0.1 (1.89)	0.2 (3.79)
Phenolic Compounds	mg/l (kg/day)	0.5 (9.46)	1.0 (18.9)
Total Identifiable			
Chlorinated Hydrocarbons	mg/l (kg/day) (2)	0.002 (0.0379)	0.004 (0.0757)

(1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

6. The arithmetic mean of values for BOD and Suspended Solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 85 percent removal).
7. The total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria when verified by a repeat sample taken within 48 hours.
8. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{3.34}{N} \sum_{1}^{N} Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

9. The 30-day average discharge rate or concentration shall be the arithmetic average of all the daily values calculated using the results of analyses of all samples collected during any 30 consecutive calendar day period. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average limitation shall not be determined.
10. Instantaneous maximum limitations shall be applied to the values of the measurements obtained for any single grab sample.
11. Geometric mean of "n" values is the n^{th} root of the values represented by x.

$$\text{G.M.} = \sqrt[n]{X_1 \cdot X_2 \cdot X_3 \cdot \dots \cdot X_n}$$

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in water of the state at any place.
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

- e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved oxygen 5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved sulfide 0.1 mg/l maximum.
 - c. pH Variation from natural ambient pH by more than 0.2 pH units.
 3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Discharge Prohibitions

1. Discharge within 200 feet offshore from the extreme low water line is prohibited.
2. There shall be no bypass or overflow of untreated wastewater to waters of the State, either at the treatment plant or from the Collection System.
3. The average dry weather flow shall not exceed 5.0 mgd. Average shall be determined over three consecutive months each year.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.
2. The discharger shall comply with the following time schedule to assure compliance with the specifications of this Order:
 - a. Compliance with effluent limitations A.1.a, b, c, e, f, A.4, A.6, B.1, a and c, and C.1, must be achieved within two months after the scheduled completion date of the proposed subregional secondary treatment plant.

b. Compliance with effluent limitation A.5:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Status of compliance with source control and compliance with pretreatment standards	May 1, 1977	May 15, 1977
Documentation of full compliance with effluent limitations	November 1, 1977	November 15, 1977

This Regional Board will consider amendment of the effluent limitation A.5 if the discharger demonstrates that compliance cannot be achieved through a program acceptable to the Board for source control and pretreatment standards

- c. The discharger shall comply with all other effluent and receiving water limitations, prohibitions and provisions of this Order immediately.
3. The discharger shall submit a report to the Board on or before each compliance report date, detailing his compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when he has returned to compliance with the time schedule.
4. The requirements prescribed by this Order amend the requirements prescribed by Resolution No. 69-22 adopted by the Board on May 28, 1969, and are effective on the dates of compliance prescribed in the above time schedule; PROVIDED, HOWEVER, that the following requirements prescribed in Resolution No. 69-22 shall remain in effect until Cease and Desist Orders No. 72-44 and 73-5 are rescinded by this Board:

WASTE DISCHARGE REQUIREMENTS - Receiving Waters

2 and 3 with respect to apparent color,

and

WASTE DISCHARGE REQUIREMENTS - Waste Stream

3 and 4.

5. Pretreatment of Industrial Wastewaters: In addition to requirements in Item 3 of the attached "Standard Provisions" and Item 4 of the attached "Reporting Requirements" and in conjunction with the tasks listed under Provision 2.a above the discharger shall:
- a. Require that all existing major contributing industries comply with pre-treatment standards for prohibited wastes and incompatible pollutants within the shortest reasonable time but not later than three years from the date of their promulgation by the Environmental Protection Agency. New industrial sources shall comply upon initiation of discharge to the municipal facility.

- b. Submit to this Board and the Regional Administrator of EPA by May 15, 1976, for each major contributing industry, either:
- 1) Evidence of compliance with pretreatment standards promulgated pursuant to Section 307 (b) of the Federal Water Pollution Control Act, or;
 - 2) A report which shall set forth the effluent limits to be achieved and a time schedule for compliance with such limits. In every case such time schedules shall require initiation of any needed construction of pretreatment facilities within 18 months of the date of promulgation of applicable pretreatment standards.
- c. Monitor the compliance of all affected sources with the requirements of this provision and submit quarterly reports on the status of such compliance to the Board and the Regional Administrator of EPA commencing 18 months after the date of adoption of this permit. Quarterly reports shall include each instance of compliance or noncompliance by an affected source with the time schedule for compliance submitted as required in "b" above. For each affected source not covered by a current time schedule, the quarterly reports shall include the results of monitoring the wastewater flow by the discharger or at the direction of the discharger, by the source, or by both, in such a manner and frequency so as to produce information that will demonstrate to the satisfaction of the Board and the Regional Administrator compliance or noncompliance with the pretreatment standards applicable to that source. Such monitoring shall comply with Part A, sections B and E.1 of the dischargers' self-monitoring program.
6. This Order includes Items 1, 2, 4, and 5 of the attached "Reporting Requirements" dated August 8, 1973.
 7. This Order includes all items of the attached "Standard Provisions", dated August 8, 1973.
 8. This Order expires on July 1, 1977, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
 9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.

I, Bill B. Dendy, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 15, 1974, as amended by the State Water Resources Control Board, on April 6, 1977.

Original signed by
Bill B. Dendy
Bill B. Dendy
Executive Officer

Attachments:

Reporting Requirements 8/8/73
Standard Provisions 8/8/73
Self-Monitoring Program

Antioch

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
ORDER NO. 76-55

As Modified by State Water Resources Control Board Order No. 77-1'

NPDES NO. CA0079278

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF ANTIOCH WASTE TREATMENT PLANT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board), find that:

1. The City of Antioch Waste Treatment Plant discharges an average of 2.5 MGD (110 l/sec) and proposes to discharge an average of 3.0 MGD (132 l/sec) and a maximum daily dry weather flow of 6.0 MGD (263 l/sec) of treated domestic waste from primary treatment facilities into the San Joaquin River, a water of the United States, at a point 1,000 feet off-shore of the south bank, at the foot of Cavallo Road, in the northeast $\frac{1}{4}$ of the southwest $\frac{1}{4}$ of Section 18, T2N, R2E, MDB&M.
2. The discharge from the City of Antioch Waste Treatment Plant is presently governed by waste discharge requirements adopted by the Board on August 29, 1953, in Resolution No. 53-38, and waste discharge requirements adopted by the Board on February 27, 1976 in Order No. 76-55 (NPDES No. CA0079278).
3. On June 19, 1975, the State Water Resources Control Board (State Board) issued Order No. WQ 75-14, which made certain modifications to Regional Board Order No. 74-568, and remanded these requirements back to the Regional Board for enforcement and such future requirement modifications as deemed necessary. The State Board also

found that the City of Antioch was in violation of a compliance schedule that required certain interim improvements, and recommended that the Regional Board consider an enforcement action against the City.

On November 21, 1975, the Board considered an enforcement action against the City of Antioch for failure to comply with the interim improvements time schedule. At that meeting the Board directed the staff to revise the existing requirements in accordance with a new interim improvements time schedule presented by the City.

5. On November 21, 1975, the City of Antioch submitted a plan to the Board which outlined a program for implementation of certain interim plant improvements by the spring of 1976, and a diversion of 40% of the plant's incoming flow to Pittsburg's Camp Stoneman treatment plant by early 1978.
6. On February 27, 1976, the Regional Board adopted Order No. 76-55 for the City of Antioch and rescinded Order No. 74-568 as modified by the State Board.
7. The City of Antioch and other local agencies in Contra Costa County are currently involved in planning efforts for a proposed subregional wastewater management system in eastern Contra Costa County. The City will connect to this system at the date of project completion, which is anticipated in mid 1981.
8. The Board on July 25, 1975, adopted a Water Quality Control Plan for the Sacramento-San Joaquin Delta. The Basin Plan contains water quality objectives for the San Joaquin River.

9. The beneficial uses of the San Joaquin River are: municipal, agricultural, and industrial supply; recreation, esthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources.
10. Effluent limitation, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.
11. The Board has notified the discharger and interested agencies and persons of its intent to modify the discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
12. The Board in a public meeting heard and considered all comments pertaining to the discharge.
13. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect ten days from the date of hearing provided the Regional Administrator has no objections.

IT IS HEREBY ORDERED, the City of Antioch Waste Treatment Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations:

1. The discharge of an effluent in excess of the following limit is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>
Settleable Matter	ml/l/hr	3.5

2. The discharge of an effluent in excess of the following limits is prohibited:

- a. Settleable matter:

The arithmetic mean of any six or more samples collected on any day 0.5 ml/l/hr, max

80% of all individual samples collected during maximum daily flow over any 30-day period 0.4 ml/l/hr, max

any sample 1.0 ml/l/hr, max

- b. The arithmetic mean of values of BOD and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 70 percent and 40 percent, respectively, of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 30 percent BOD removal and 60 percent suspended solids removal).
3. On July 1, 1977, the following requirements will become effective.

- a. The discharge of an effluent in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>7-Day Average</u>	<u>30-Day Median</u>	<u>Daily Maximum</u>
B.O.D. (1)	mg/l	30	45	- -	60
	lbs/day	750	1,125	- -	1,500
	kg/day	340	510	- -	680
Total Suspended Solids	mg/l	30	45	- -	60
	lbs/day	750	1,125	- -	1,500
	kg/day	340	510	- -	680
Oil and Grease	mg/l	10	- -	- -	20
	lbs/day	250	- -	- -	500
	kg/day	113	- -	- -	226
Settleable Matter	ml/l	0.1	- -	- -	0.2
Chlorine Residual	mg/l	- -	- -	- -	0.0
Total Coliform Organisms	MPN/100 ml	- -	- -	23	500

(1) 5-day, 20°C Biochemical Oxygen Demand

b. Survival of test fishes in 96-hour bioassays of undiluted wastes shall be no less than:

Minimum, any one bioassays-----70%
Median, any three or more consecutive bioassays--90%

c. The arithmetic mean biochemical oxygen demand (5-day) and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (85 percent removal).

4. The discharge of an effluent with a daily maximum chlorine residual concentration greater than 0.1 mg/l is prohibited.
5. The total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria when verified by a repeat sample taken within 48 hours.

6. The discharge shall not have a pH less than 6.5 nor greater than 8.5.
7. The average daily dry weather discharge shall not exceed 3.0 million gallons. (11.4 million liters).
8. Bypass or overflow of untreated or partially treated waste is prohibited.
9. The discharger shall use the best practicable cost effective control technique currently available to limit mineralization to not more than a reasonable increment.

B. Receiving Water Limitations:

1. The discharge shall not cause the dissolved oxygen concentration in the San Joaquin River to fall below 5.0 mg/l.
2. The discharge shall not cause visible oil, grease, scum, or foam in the receiving waters or watercourses.
3. The discharge shall not cause concentrations of any materials in the receiving waters which are deleterious to human, animal, aquatic, or plant life.
4. The discharge shall not cause fungus, slimes, or other objectionable growths in the receiving waters.
5. The discharge shall not cause esthetically undesirable discoloration of the receiving waters.
6. The discharge shall not cause bottom deposits in the receiving waters.
7. The discharge shall not cause floating or suspended materials in the receiving waters.

8. The discharge shall not increase the turbidity of the receiving waters by more than 10% over background levels.
9. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Source Control:

Additional industrial waste discharges having a toxicity greater than a 96-hour TLM of 30% of the City of Antioch's sewer system by dischargers who did not discharge into the system prior to the issuance of this order are prohibited provided the following are excluded from this provision: (a) projects under construction or for which were issued building permits before April 1, 1977, or (b) projects which would alleviate an extreme public hardship or a public health problem.

Any exclusion under Section C(b) must be specifically approved by the Executive Officer of this Board.

D. Special Provision:

Discharge from the City of Antioch Waste Treatment Plant is prohibited 60 days after completion of construction of a subregional wastewater management system in eastern Contra Costa County.

E. Provisions:

1. Neither the discharge nor its treatment shall create a nuisance as defined in the California Water Code.
2. Compliance with the requirements A.2.a. and A.2.b. of this order shall be in accordance with the following time schedule:

July 1, 1977	- Provide proof of 50% completion of plans and specifications
August 15, 1977	- Submit complete construction plans and specifications to the State Board.
December 15, 1977	- Award construction contract.
April 1, 1978	- Status report.
August 1, 1978	- Status report.
March 1, 1979	- Complete construction.
April 1, 1979	- Full compliance with A.2.a. and A.2.b.
3. The requirements prescribed by this Order amend the requirements prescribed by Resolution No. 53-38, adopted by the Regional Board on August 29, 1953, which shall remain in full force and effect until rescinded.
4. This Order includes items 1, 2, 4, and 5 of the attached "Reporting Requirements".
5. This Order includes items 1 through 11 inclusive of the attached "Standard Provisions".

6. The discharger shall comply with the Monitoring and Reporting Program No. 76-55 and the General Provisions for Monitoring and Reporting as specified by the Executive Officer.
7. This Order expires June 30, 1977, and the City of Antioch Waste Treatment Plant must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
8. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the office of the Board.
9. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken C_i is the concentration measured in the composite sample, and Q_i is the average flow rate occurring during the period over which samples are composited.

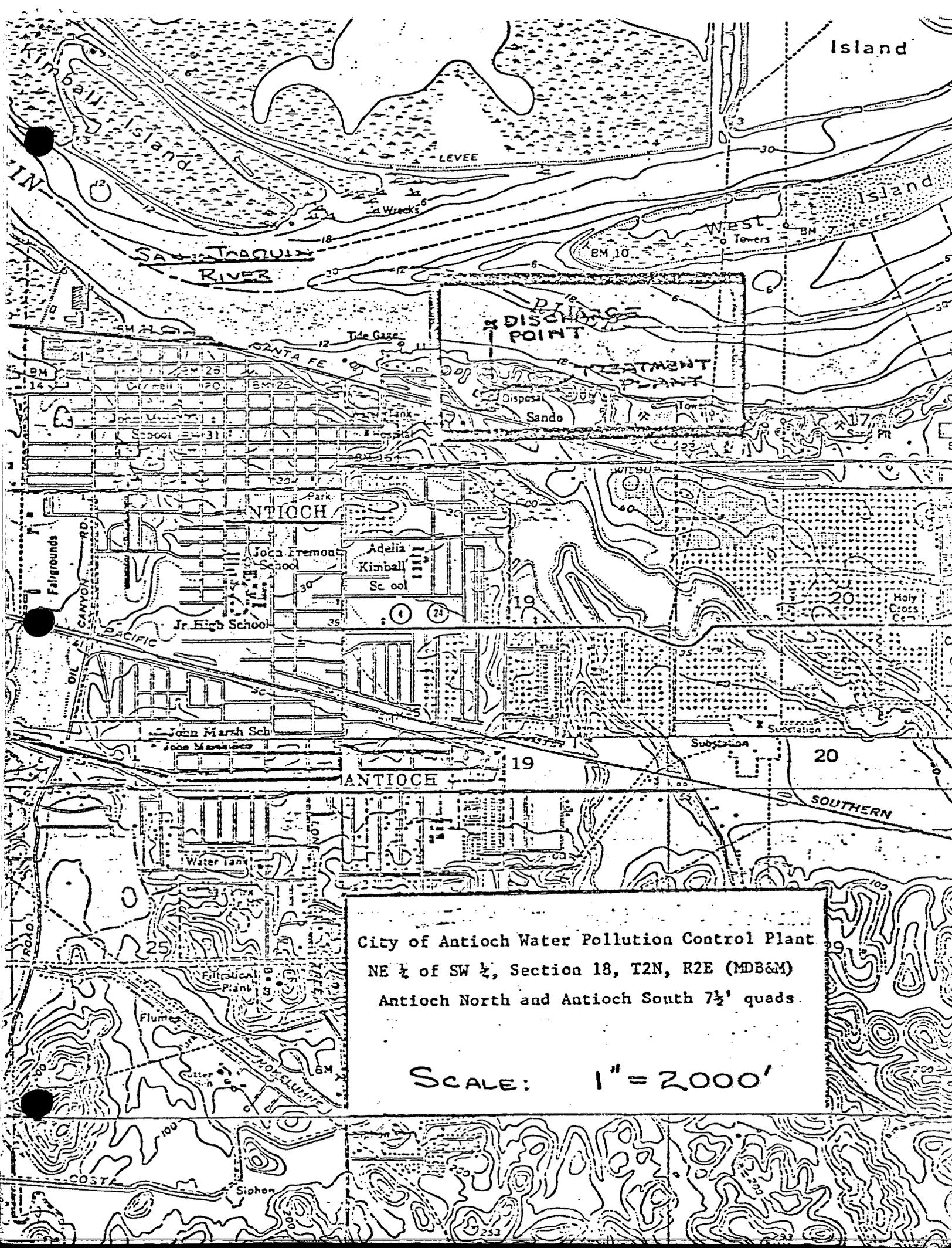
The 7-day and 30-day average discharge rates shall be the arithmetic average of all the values of daily discharge rate calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day period respectively. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average discharge rate limitation shall not be determined. If fewer than three samples are collected and analyzed during any 7 consecutive calendar day period compliance with the 7-day average rate limitation shall not be determined.

The daily maximum concentration shall be determined from the analytical results of any sample whether discrete or composite.

10. The discharger shall ensure compliance with any existing or future pretreatment standard promulgated by the Environmental Protection Agency under Section 307 of the Federal Water Pollution Control Act or amendments thereto, for any discharge to the municipal system.

I Bill B. Dendy, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Valley Region, on February 27, 1976, as modified by the State Water Resources Control Board on April 6, 1977.

Original signed by
Bill B. Dendy
Bill B. Dendy
Executive Officer



Island

Island
SACRAMENTO RIVER
LEVEE
Wreck's

WEST TOWERS

DISCHARGE POINT
TREATMENT PLANT

SANTA FE
Tide Gate
Disposal
Sando

ANTIOCH
Park
Joca Fremont School
Adelia Kimball School
Jr. High School

Fairgrounds
CANYON RD
PACIFIC

JOHN MARSH SCHOOL

ANTIOCH

SOUTHERN

City of Antioch Water Pollution Control Plant
NE 1/4 of SW 1/4, Section 18, T2N, R2E (MDB&M)
Antioch North and Antioch South 7 1/2' quads.

SCALE: 1" = 2000'

COSTA
Siphon

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